

Not whether, but how

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Not whether, but how

A response to a comment by Paul Barford

Raimund Karl and Katharina Möller

In a series of reactions on his blog (see [here](#) and [here](#)), Paul Barford (and a [commentator](#)) have questioned the results of our study "[An empirical examination of metal detecting](#)". Yet, apparently, they both have seriously misunderstood the point of our paper. Much like Sam Hardy (see "[Estimating numbers?](#)") they seem to not understand the difference between comparing data of the same kind for the purpose of deductive hypothesis-testing and 'estimating' numbers of metal detectorists based on different kinds of data; and why such hypothesis-testing is needed for coming up with better solutions for regulating metal detecting than archaeology, as a profession in general, seems to have come up with as of yet.

Thus, also as further explanation, we would like, in the following, to respond to these comments. Not that we believe it will help Paul Barford, since it is our feeling that he has long dug himself into too deep a hole to be able to get out again; or even see the need to stop shovelling. Rather, it hopefully will allow somewhat more open-minded readers to better understand why our results, and the conclusions we have drawn and actions we have taken based on them, are both helpful and suitable to move forward the debate on how to best regulate metal detecting; and possibly even to find more effective solutions for actually doing so.

Comparing data, rather than 'estimates'

In contrast to what Barford and the commentator (the latter quoting from Hardy's study) seem to think, we do not say anywhere in our paper that there were only 7,331 active detectorists in the UK as of 2/3/2015. We say that on 2/3/2015, 7,331 was the number of subscribers to the largest internet discussion board for metal detecting in the UK. This is a factually correct statement, because that was what the figure was on that day. It is data.

We also collected the membership figures of German and Austrian discussion boards on the same date. That is also data.

Establishing transnational comparability

We believe that it is rather important to use exactly the same kind of data in transnational comparisons, so that it can be directly compared; and also reasonably controlled for differences in data quality.

The membership lists of boards usually contain at least some, if not much, additional information on members in data tables. This data, for instance, allows to compare the chronological development of membership figures between different boards; allows to determine the percentage of active members (who post to the board) and passive ones (who only read, or may have only joined and read something once and then never returned); and whether a board is occasionally removing long-term inactive members. The latter, for instance, can be demonstrated for the largest German board: the sum total of posts registered since its inception exceeds the sum total of posts by active subscribers (as last calculated from data from its member list on 5/3/2016) by c. 4% (ca. 35.000 posts in absolute

numbers); clearly demonstrating that, at least occasionally, even formerly active subscribers have been purged from it. Similarly, the largest British board had 11,560 subscribers as of 2/4/2017, but only 9,059 as of 11/3/2018, indicating a relatively recent purge of c. 2,500 'inactive' subscribers. All this makes it possible to control the data for independent variables which may affect its transnational comparability.

Other social media, on the other hand, do not normally provide, or make it very difficult to access, such data on their members, making it difficult, if not impossible, to control transnational data comparability. Also, other social media are completely differently structured than discussion boards and thus not only are likely to attract somewhat different segments of the overall population of metal detectorists in a country, but to also be used at least somewhat differently, thus catering to different needs of the metal detecting community.

Thus, it seems to us that using data from other social media, e.g. from Facebook metal detecting groups (as the commentator on Barford's blog suggests we should have done, because the largest UK Facebook Group for metal detecting has many more members than the largest UK discussion board) would compromise transnational data comparability too much to allow for a rigorous transnational comparison. Comparing such different kinds of social media data would be like the proverbial comparison between apples and oranges: certainly possible, but not necessarily very meaningful.

The premises of the transnational data comparison

None of the data we collected is the actual number of metal detectorists in each of the countries we compared, nor is it the minimum number of people engaging in this activity. We do not know what fraction of the overall population of metal detectorists each of these membership numbers are, nor do we have any reliable means to establish what fraction they are. We thus do not produce any 'estimates' for the total number of active metal detectorists in each country from those membership figures. Such 'estimates' would not be data, but – however well informed – guesses. Comparing guesses transnationally may be an interesting mind-game, but it is not an empirical study.

Thus, rather than comparing 'estimates', to produce an empirical examination of the relative sizes of metal detecting communities in different countries, we compare the data we collected directly. This is based on a premise (an **assumption**) we explain in our paper: that these membership figures (particularly of the largest board in each country) represent, at least roughly, similar fractions of the overall number of active metal detectorists in each of them.

If that assumption is correct, the data is directly comparable transnationally, because of the simple fact that the ratio between two unknown numbers X and Y, which each represent (at least roughly) the same fraction F of two known figures A and B, will always be (roughly) the same as the ratio between A and B. The mathematical formula for this is:

$$X : Y = (A/F) : (B/F).$$

Is this premise reasonable?

As with any assumption, this premise may, of course, be false; and we can happily discuss whether that is the case (as Barford, somewhat awkwardly, attempts [here](#)). So if anyone is interested in having a rational debate about whether it is false or at least sufficiently verisimilar ('true-ish') to serve as a first approximation, we can happily have that debate.

For the purpose of our paper, we have assumed that this assumption is at least verisimilar enough to allow to directly compare the data for the purpose of a first approximation of the relative sizes (whatever they might actually be in absolute numbers) of the metal detecting communities in the

compared countries. We believe this assumption to be sufficiently verisimilar not least because of the results of our examination of the data itself: that, per capita, Germany has about thrice as many subscribers to the largest national discussion board, and Austria about twice as many, as Britain.

This means for even only achieving parity in the per capita size of the metal detecting communities in Germany and Britain, one would have to assume that at least thrice as large a fraction of the German metal detecting community has subscribed to the largest German national board as has in Britain. So, assuming – for the sake of this argument – Britain had about 22.000 active metal detectorists on 2/3/2015, and that just 33% of that community – that is the 7.331 subscribers we found – had subscribed to the largest British board, 100% of all active German metal detectorists would have had to have subscribed to the largest German board to achieve per capita parity of metal detecting community sizes.

However, it is actually quite unlikely that the largest German board represents a full 100% of the German metal detecting community. As we have demonstrated in our paper, there are several other sizeable German boards for metal detecting. Therefore, for the largest German board to represent all active German metal detectorists, members would have had to subscribe to both the largest and at least one other of the somewhat smaller, but still sizeable boards. While there will be some overlap, this seems rather improbable. Rather, there will be some fraction of them who have only subscribed to one of those smaller, but still sizeable boards. And we would hazard to guess that there are at least some who haven't subscribed to any such board. Thus, in all likelihood, the membership of the largest German board is less than 100 % of all active German metal detectorists.

So, let us assume for the sake of this argument that the largest German board has only been subscribed to by c. two thirds of all active German metal detectorists. That would, incidentally, mean that on 2/3/2015, there would have been – approximately – 45.000 active metal detectorists in Germany. For achieving parity per capita in terms of numbers of metal detectorists between Germany and Britain, that would require us to assume that the 7.331 subscribers to the largest British board on 2/3/2015 only represented c. 20% of all active British metal detectorists. That, in turn, would mean that on 2/3/2015, there would actually have been c. 36,500 active British metal detectorists (which of course would be entirely possible, but is already a number which is larger than most current estimates).

[How much data bias is required for reversing the results?](#)

To support the idea that restrictive regulation is more effective than liberal regulation in reducing the number of metal detectorists active in a country, our data would need to show the opposite of what it actually does. Ideally, it would need to show (at least) something like, say, that there are twice as many subscribers per capita for the largest British board than for the largest German one.

To get to this result by arguing that our data is so biased that it seems to show the opposite of what actually is the case, one would need to assume that while almost every active German metal detectorist has subscribed to the largest German board, hardly any active British metal detectorist has: say, 100% of all German metal detectorists, but only c. 15% of all British ones having subscribed to the largest national board in their country. That would mean that there would have had to have been c. 49.000 active metal detectorists in Britain on 2/3/2015. Of course, that may have been the case, but it increasingly widens the gap between the available evidence and the necessary assumptions to maintain the hypothesis: it starts to put data into the straight-jacket of theory.

It only gets worse if one assumes – as one has to – that the largest German board is not actually subscribed to by every single active German metal detectorist. If, say, only 66% of all active German

metal detectorists should be subscribed to the largest German board, then only 10% of the active British metal detectorists can have subscribed to the largest British board to maintain a ratio of 2 British to 1 German metal detectorists per capita. That would mean that on 2/3/2015, there would have had to have been c. 75,000 active metal detectorists in Britain (and indeed, that there would now be slightly more than 90,000 as of 11/3/2018, given that at that date, the largest British board had 9,059 subscribers).

Point being: for the results of our data comparison to show the reverse of the actual per capita ratio of metal detecting community sizes in Germany and Britain, there would need to be an exceptionally substantial data bias.

What is the expected direction of bias in our data?

Such a substantial data bias is quite unlikely, particularly in the direction it would need to be biasing the data to pervert our results into the very opposite of what is really the case. There are at least two good reasons for why fewer active metal detectorists should be subscribing to German boards than British ones:

Firstly, IP addresses are traceable to their origin. That should not constitute any issue in Britain, where metal detecting is hardly regulated at all: there is no risk associated for the ordinary metal detectorist with subscribing to a board. In Germany, on the other hand, most state heritage agencies insist that all metal detecting is strictly prohibited without a permit and punishable with up to half a Million Euro, and/or two years in jail, depending in what state one pursues this activity. And there are indeed some archaeologists and some interested citizens subscribed to German metal detecting boards who do report offences they find evidence for on these boards (or elsewhere on the internet) to the authorities, which has already resulted in several successful prosecutions (e.g. most recently in the case of the "[Barbarenschatz von Rülzheim](#)", which ended with a conviction of the looter for embezzlement under § 246 of German Penal Law). Thus, subscribing to a board for this activity in Germany carries at least some risk for metal detectorists of exposing themselves to prosecution, if not a considerably risk.

And secondly, while nearly every native German speaker also speaks and reads English as their second language; only a small percentage of Brits speaks and reads German. Thus, there are quite some native German metal detectorists subscribed to some of the British metal detecting boards; while hardly any British metal detectorists are subscribed to German boards.

Thus, statistically speaking, membership figures of British boards should be considerably inflated compared to those of German ones; that is, represent a greater fraction of the metal detectorist population in Britain than the membership figures of German boards do of the German metal detectorist population. Thus, if the metal detecting communities in Britain and Germany were actually of exactly the same size per capita of the total population of these two countries, our data should – falsely because of the expected bias – appear to show more metal detectorists per capita in Britain than in Germany. Yet, our data shows the very opposite of this; in fact, it deviates very significantly from parity in the other direction than the one it should due to the expected data bias.

Falsifying hypotheses, rather than explaining data away

Thus, while it is of course not impossible that the assumption we used in our study for comparing our data directly is false, it must be considered quite unlikely that it is so significantly false as to have reversed our results to show the opposite of what actually is the case. A very good explanation for such a massive and unexpected data bias would be required; and at least as far as we can see at this

point in time, there is not even a sliver of evidence that suggest that such a massive bias in the data exists.

Even if one accepts a shift in internet use by British metal detectorists from boards to facebook, as Barford has [suggested](#), there is not much evidence that the same isn't happening in Germany and Austria. Barford just proposes that that shift in the UK serves to explain the difference; but without demonstrating that there is no comparable shift in Germany. Yet, even a quick search for only one of the many potential terms that could be used to find facebook groups for German metal detectorists – that of “Sondler” – produces the maximum number of 100 search results that Facebook shows. Naturally, many of the groups turned up have only a few subscribers or even only one, but there also are many with over a 1,000 members each; with one as of 16/3/2018 (at 9:19 GMT) having had 18,381 members. And that is not even considering that more of our German than our British facebook friends are subscribed to the UK metal detecting facebook group referenced in the [comment](#) on Barford's blog, while none of our British facebook friends have subscribed to any of the German metal detecting facebook groups that we are also members of.

Similarly, Barford's argument that the *“two biggest UK 'boards' (sic) formed in opposition to each other”* due to *“a shift in policy on what was then the biggest forum, and many members left (some were expelled) and other forums were set up”* also fails to explain the discrepancy in our data between the UK and Germany. After all, there are a full three German boards with larger, and another two with almost as large per capita memberships as the biggest two British boards. These also formed as results of splits in the German metal detecting community, which led to members leaving (or being expelled from) what was then (and still is) the biggest German board, leading to (the) other forums being set up. Thus, the fact that the second largest British board was formed in opposition to the first is not particularly suitable to explain the data we collected, but only an attempt – and at that a not too well-founded one – to explain the data away. This fact, thus, also does not support the suggestion that our results would be explicable by the massive data bias that would have to be assumed to invalidate our results.

That, in turn, means that the data and premise we used seem sufficient for the purpose we used them for: after all, we wanted to test the hypothesis that restrictive regulation of metal detecting is more effective than more liberal regulation in reducing the number of persons who take up this activity. For that hypothesis to be true, the number of metal detectorists per capita active in countries with more restrictive regulations should be considerably lower than in countries with more liberal, or indeed hardly any, regulation of that activity, as is the case in Britain.

Thus, to demonstrate that this hypothesis is false, it was entirely sufficient for us to demonstrate that the per capita numbers of metal detectorists active in countries with restrictive regulation of metal detecting, like Germany or Austria, are roughly the same as in 'liberal' countries like Britain. Yet, in fact, the data we compared doesn't show that, in all likelihood, there are roughly similar per capita numbers of metal detectorists who seem to be active in the three countries we compared. Rather, our data seems to show that the size of the metal detecting community in Germany (however big it may actually be), the most restrictive of the three countries compared in terms of how metal detecting is regulated, seems to be considerably larger than that of this community in Britain, the most liberal one; with Austria sitting somewhere in the middle between the other two.

Thus, the data we compared would seem to indicate that the very opposite ratio of community sizes exists than should were the hypothesis we tested be true. Thus, we concluded that (at least for the time being, as is always the case in academic endeavours) the hypothesis that restrictive regulation of

metal detecting is more effective at reducing the number of active metal detectorists than more liberal regulatory regimes would have to be considered to have been falsified.

The thrust of our argument

Paul Barford, in his first [blog post](#), also fundamentally misunderstands what we were trying to achieve with our study; perhaps because he is looking at the matter from a British perspective (despite living in Poland), while we are looking at the matter from an Austrian and German perspective (despite living in Britain). He seems to mistakenly believe that we are arguing against (restrictive) regulation of metal detecting; while in fact, we are not.

In fact, we both are **for** regulating metal detecting; and neither of us believes that the approach taken in Britain of hardly regulating the activity at all is a sensible approach. We believe that sensible regulation of this activity is both desirable and necessary; not just for the good of archaeology, but, equally importantly, also for the good of the metal detectorists. The question for us, thus, is **not whether** metal detecting should be regulated; but only **how** it should best be regulated.

Rational inquiry into the efficacy of existing regulation

But for finding a sensible approach to regulating metal detecting – and with sensible we mean one that minimises the damage caused by this activity as much as possible, and at the same time maximises its potential benefits (of which there certainly are some, if perhaps not as many as it – at least currently – causes in terms of avoidable damage) – one needs to first conduct rational and unbiased studies of the efficacy of existing regulatory approaches, rather than just banging on about it being wrong to have no regulation of metal detecting at all. Banging on about it being wrong may be emotionally satisfying and a suitable othering for the benefit of archaeological identity politics; but it seems rather unlikely – as past experience shows – that it will produce any meaningful success for minimizing the damage caused and maximising the potential benefits that might be derived from this activity if it is properly regulated.

It is particularly at this point that the ‘germanophone’ perspective that we take comes in: in our respective home countries, many, if not most, professional archaeologists and archaeological heritage managers seem to believe that we are in need of even tighter, even more restrictive regulation with even more possibilities to punish metal detectorists for doing what they do (see for this e.g. “[Schärfere Gesetze für die Denkmalpflege?](#)”), despite already having very restrictive regulation of this activity. But for this approach – which is the approach ‘germanophone’ archaeological heritage management has consistently taken for the past c. 50 years, that is, since metal detectors became widely available in our countries – to work, the hypothesis must be true that more restrictive regulation is more effective at reducing the numbers of active metal detectorists than less restrictive regulation.

If it isn’t – and our work, most recently in both “[An empirical examination of metal detecting](#)” and “[Schärfere Gesetze für die Denkmalpflege?](#)”, seems to demonstrate that, indeed, it is not – then any success that we may achieve in getting even more restrictive regulations on the book will not do us any good. Rather, it will only have even more unintended and unwanted side-effects than the regulations we already have already do.

Unwanted side-effects of restrictive regulation as in Austria and Germany

And that they do have such unwanted side-effects is proven beyond any reasonable doubt by the fact that, despite all German and Austrian heritage laws having provisions making reporting of any archaeological find compulsory, regardless of the circumstances of its discovery, under threat of severe punishment, finds are not only much less rarely reported anywhere in Austria and Germany

than they are to the PAS in England and Wales; but are being reported less frequently than they were before more restrictive regulations were introduced in the last few decades, despite a constant rise in the number of active metal detectorists over the same period.

That, of course, must not be misunderstood as an argument against compulsory and for voluntary reporting schemes (like the PAS), because it is neither intended as such, nor would such an argument hold water: it is just stating an inconvenient truth.

After all, the very point of legally compulsory finds reporting is to increase rather than decrease the number of finds that have actually been made being reported to the authorities. In Austria, in fact, this is the explicit intent of the legislator since (at least) 1846, when it was clearly expressed in the context of the state giving up its one-third ownership share in finds of treasure (Frodl 1988, 34; most recently discussed in greater detail in Karl et al. 2017) to encourage the reporting of archaeological finds. Thus, if in countries with voluntary reporting systems, many more finds are being reported than in such with compulsory ones, something must be amiss in the latter countries.

Given that it can be clearly demonstrated that the reporting figures considerably declined in Austria as a consequence of making metal detecting regulations much more restrictive than before in 1990 and again in 1999, by as much as 75% (Karl 2012, 105) compared to immediately before, it seems rather likely that the cause for not reporting them is the way in which metal detecting is being regulated. Thus, it would seem that these new and – at least allegedly, from an archaeological perspective – ‘improved’ regulations for preventing the occurrence of metal detecting (so, explicitly, the then head of archaeology at the Austrian National Heritage Agency, Dr. Christa Farka, quoted in Szemethy 2004, 160) achieved, as its only effect, that – as seems to have surprised Farka – “*the legally compulsory finds reports are not submitted*” (ibid.), while the number of active metal detectorists has continued to rise unabatedly. Thus, the legal prohibition of metal detecting seems to have had the unintended and unwelcome side-effect to subvert the will of the legislator (as first clearly expressed in 1812 and repeated numerous since) that archaeological finds be reported.

[A mitigated problem or an unmitigated disaster?](#)

But if there are such unwanted side-effects, it becomes absolutely essential to empirically test whether restrictive regulation has the effect desired by many, if not most, germanophone archaeologists (and indeed the germanophone legislatures); and that is what we set out to do, and still believe to have achieved, in our paper.

After all, if restrictive regulation reduces, not the number of finds being extracted ex situ unprofessionally, but instead – and that considerably – the incidence of finds that have been made being reported, it also removes any ‘extraction ex situ damage’-mitigating effect that reporting has. And finds reporting must have such a damage-mitigating effect, however small it may be in any individual case: after all, if it had not, why bother with making archaeological finds reporting compulsory at all? Thus, restrictive regulations of the kind that Austria and the German states have – in this regard – increases the damage caused by unprofessional extraction of archaeology ex situ. That, again, is just stating an inconvenient truth, not an argument for no regulation.

However, that inconvenient truth makes it all the more important that restrictive regulations do, in fact, reduce the actual incidence of metal detecting; that is: reduce the number of archaeological objects ‘hoiked’ out of the ground. Because if restrictive regulation does not reduce the incidence of metal detecting compared to more liberal (or indeed no) regulation (whatsoever), it does not reduce the damage caused by the unprofessional extraction of archaeology ex situ at all.

That, in turn, makes testing the hypothesis that restrictive regulations like the ones existing in Austria and the German states absolutely crucial. After all, if that hypothesis does not hold true, only their detrimental effects on reporting are achieved, but not the beneficial effects of the hypothetically predicted reduction in the damage actually caused by the extraction of archaeology *ex situ*. Or, in somewhat harsher words: if that hypothesis does not hold true, a problem which could at least have somewhat been mitigated by a different approach to regulating metal detecting turns into a truly unmitigated disaster due to the regulatory approach chosen.

[An argument for what kind of regulation?](#)

Sadly, the results of our study seem to show that restrictive regulation – at the very least of the kind that exists in Austria and the German states – does not have the hypothetically predicted and desired effect of reducing the incidence of metal detecting (also see Szemethy 2004, 160, in case of doubt that this is the effect which was desired by – at least – Farka) compared to more liberal regimes of regulating metal detecting.

That, however, is not by us and should not be misunderstood by others as an argument for no (or even only ‘liberal’) regulation: after all, our paper neither set out to nor did prove that liberal regulation is more effective than restrictive regulation in reducing the number of active metal detectorists in a country. That was never its scope: we did not test the data for whether liberal regulation is more effective than restrictive regulation in reducing the incidence of metal detecting; since that would have required us to proceed entirely differently than we did.

We also never argued in our paper that we were testing whether more restrictive or more liberal regulation of metal detecting is more effective at suppressing the incidence of metal detecting. Rather, as we explicitly concluded in the German version of our paper, we believe both restrictive and liberal regulatory regimes to be **equally ineffective** at achieving the effect desired by so many a germanophone (and not just germanophone) archaeologist. What we concluded is that neither significantly reduces the number of active metal detectorists in a country; but that the size of the respective national metal detecting communities is determined – virtually entirely – by utterly different, and as yet largely unknown or insufficiently understood, other variables.

If that conclusion were true, that has consequences as to how we approach regulating metal detecting; and especially that we need to approach it differently than we have before.

[How to differently \(and hopefully more effectively\) regulate metal detecting?](#)

How we believe regulating metal detecting could be approached differently to hopefully achieve more effectively what we intend to achieve, the Austrian author of this paper has indeed recently outlined in his proposal for changes to Austrian heritage law. He has discussed these in German in a very condensed manner in [“Ein Vorschlag für neue archäologische Denkmalschutzbestimmungen für Österreich”](#).

That proposal, to provide an even shorter English summary, includes a compulsory recording and reporting requirement for all archaeological finds, regardless of the circumstances of their discovery. Thus, the thrust of our argument, in case that anyone still believes we are for entirely voluntary reporting, is not, and never has been, that regulation of metal detecting should be entirely abolished and a ‘British’, nearly entirely voluntary system, of finds reporting be introduced.

But that proposal also suggests to largely abolish the universal permit requirement currently contained in the Austrian (and most German) ‘archaeological fieldwork’ regulations (because the legal provisions used in these countries for regulating metal detecting do not just apply to metal detecting, but any archaeological fieldwork) that hardly any metal detectorist appears to be complying with or

be concerned about. This, again, is not because we are for ‘anything goes’ where metal detecting is concerned, either; but because we recognise the sad reality that the restrictive permit regime as is currently in place is utterly counter-productive: it achieves the opposite of what it intends to achieve. Thus, the Austrian permit regime in its current form must go, because persisting with a regulation that demonstrably achieves the opposite of what it intends to achieve, to the detriment of the archaeology, is madness, plain and simple.

What was proposed instead is regulation which links the legality of any archaeological finds recovery with the competence by which it is conducted: if done competently (which naturally requires its proper recording and reporting), it is legal; if done incompetently, it is punishable by law.

To encourage actual compliance by as many involved parties as possible, it was proposed to also link legal extraction of archaeology (as just defined) directly with the acquisition of exclusive legal ownership in any finds made (with a possibility for the state to compulsorily purchase significant finds). If a find was extracted with such competence that the extraction was legal, the finder gets to own it. If it was extracted incompetently and thus illegally, ownership of it falls to the state. The acquisition of full legal ownership of finds competently extracted ex situ (also see on this “[Against retention in situ](#)” for the reasons why this is actually beneficial from the perspective of long-term archaeological data preservation) by their finders provides positive encouragement for metal detectorists to acquire and apply the skills necessary for legal extraction of archaeology. The acquisition of ownership of finds legally extracted thus provides the carrot.

Combined with a central finds register also proposed, this way of regulating the matter would also allow the state to confiscate any archaeological find that it becomes aware of which hasn’t been properly recorded and reported at the point of its discovery. This would make it much easier to execute the already existing provision in Austrian heritage protection law that illegally recovered finds fall to the state. This provision currently can hardly ever be enforced: under current regulations, a permit is only required if the finder conducted fieldwork with the intent to discover archaeology, and this intent is nearly impossible to prove in almost all cases; especially if the finder is not caught in flagrante. Under the newly proposed regulations, on the other hand, any find that isn’t on the central register could be confiscated without any further ado, wherever it was discovered by the authorities (and be it only on eBay). That would provide the archaeological authorities with a stick.

Actual ‘archaeological excavations’, that is, any research with the purpose of discovering archaeology requiring changes to the ground (whether above or under water) exceeding certain dimensions (somewhat simplified: of more than 1 m³), would still require an ‘archaeological’ permit under the proposal; as indeed would – in contrast to the current situation, where this is not the case – any other change to the ground exceeding those dimensions for whatever reasons. Recording and reporting of archaeology under such circumstances would also require compliance with considerably higher (fully professional) standards; thus improving considerably the currently rather dreadful protection of archaeology from development in Austria. Naturally, this permit requirement for ‘substantial groundworks’ would also apply to metal detectorists, as it equally would to everyone else who wants to dig any larger-sized hole into the ground.

We would argue that such a kind of regulation of metal detecting (and indeed any other archaeologically relevant activity), has a much better chance than both the currently existing restrictive regulations in Austria and Germany, and the liberal ones in Britain, to achieve the desired effect: that damage to the archaeology by its extraction is minimised as much as possible, and the potential benefits of its recovery maximised.

And we would definitely argue that it stands a much better chance to achieve that effect than shouting insults at the ‘evil looters’ at the top of one’s voice on a blog that most metal detectorists have never even heard of, most of those who have wouldn’t take seriously anyway, and which won’t change a dot about public opinion regarding the ‘evils’ of looting archaeological sites.

Conclusion

Thus, if Barford argues, as he does, that we “*seem not to see what the actual issue is*”, he is missing the point we are making and misinterpreting entirely the thrust of our argument. Because we, exactly as he, think the issue is “*regulation, both of the activity of artefact hunting, proper documentation of assignment of ownership of finds and regulation of the movement of artefacts on the collectors’ market*”. The question is not whether to try to, but only how to achieve that aim.

We believe that the way to achieve this aim is by coming up with reasonable solutions, that at least have a minimal chance of achieving the aim that we, at least as much as Barford, would actually like to achieve. Creating even only reasonable suggestions for potentially effective solutions, however, first requires – at least in our opinion – a self-critical assessment of our laws, policies and practices, based on sound empirical assessment of reality. Because, to put it bluntly, what we have been trying for the past 50 years seems to not only have failed to work as intended, but indeed seems to have made matters worse than they would have had to be. If we do not learn from our, and indeed refuse to even only consider that we have made any, mistakes over the last 50 years – and we would argue that we have made many and grievous mistakes – we will continue to do more harm than good.

If we, as a profession, truly wish to do what we constantly argue we do – that is, protect the archaeology from preventable harm and preserve and academically study it for the benefit of all of humanity – we need to start to act like the competent academics we are supposed to be. That, as is expected of all competent academics, means to first dispassionately and critically examine empirical data and draw rational conclusions from it; to then come up with reasonable solutions to real-world problems. That is what we intended to achieve with our research, and believe – at least until we are convinced otherwise by rational arguments better than ours – to actually have achieved.

If Barford (or indeed anyone else) wishes to disagree with our conclusions and proposals derived (ultimately) from them, or the data, methods and/or assumptions we used to arrive at them, he is of course welcome to do so. But if he wishes to convince us, or indeed anyone who happens to want to find rational, effective solutions to the metal detecting problem, that will require him (or anyone else who wishes to) to come up with rational arguments that actually pertain to ours and disprove them. Just claiming our results are wrong just because he doesn’t like them, and try to explain our data away, without even having bothered to properly understand what we are actually saying, will not.

More importantly, however: if Barford believes to have a better proposal than the one that we have recently made in Austria, he is welcome to present them here. We would be most interested to see how his constructive suggestions differ from ours, and are happy to change our views at any time if he can convince us of his proposals.

We would particularly like to hear them because, sadly, we as yet have been unable to find any actual suggestions on his blog as to what kind of regulation of metal detecting would, in his opinion, work better than both the failed Austrian and German restrictive, and the almost equally suboptimal English and Welsh liberal system of regulating metal detecting. Other than, of course, as he says in his [conclusion](#) to his first response to our [paper](#), “*that Collection-Driven Exploitation of the archaeological record should lose the mantle of social acceptability that it has*”, which is just yet another aim. Thus,

any rational and well-argued answer to the question, here as above, not as to whether, but how, to achieve this aim, that Paul Barford could provide, would be welcome.

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